

REMARKS

This responds to the Office Action mailed on January 27, 2004.

Claims 4 and 24 are amended, no claims are canceled, and no claims are added; as a result, claims 4-13 and 18-31 remain pending in this application.

Applicant notes that an interpretation of certain claims is presented on page 2-3 of the pending office action. Applicant respectfully submits that the claim language speaks for itself. Applicant notes that as defined in the specification, “modifying a friction coefficient” includes a number of possible techniques such as chemical modification and/or physical modification.

Oath/Declaration

The previous Office Action, mailed August 8, 2003, stated in paragraph 7 that the Oath/Declaration was defective. Accordingly, Applicants submit herewith a properly executed Supplemental Declaration and Power of Attorney. It is believed that the Supplemental Declaration and Power of Attorney is in compliance with 37 C.F.R. 1.167(a).

§102 Rejection of the Claims

Claims 4, 6-9, 11-13, 24, 26-28, 30 and 31 were rejected under 35 USC § 102(e) as being anticipated by Margrave et al. (U.S. 6,645,455).

Applicant does not admit that Margrave is indeed prior art and reserves the right to swear behind this reference at a later date. Nevertheless the Applicant believes that the present claims are distinguishable from the reference for the following reasons.

The rejection argues that Margrave et al. teach modifying a friction coefficient of a carbon nanotube using fluorine groups. The rejection further states that the same operation of attaching the same fluorine groups doubles as an attaching step where the carbon nanotubes are attached to a reactive molecule.

Margrave appear to show fluorination of carbon nanotubes and solvation of individual nanotubes in alcohol solvents. Margrave appears to show detection of isolated nanotubes by placement of solvated nanotubes on a mica substrate and examining them with atomic force microscopy. However, Margrave does not show attaching a carbon nanotube to a reactive molecule and

further modifying a friction coefficient of the carbon nanotube in an operation separate from attaching the reactive molecule.

In contrast, claim 4 as amended includes attaching a carbon nanotube to a reactive molecule and further modifying a friction coefficient of the carbon nanotube in an operation separate from attaching the reactive molecule. Further in contrast, claim 24 as amended includes modifying a friction coefficient of side surfaces of a carbon nanotube and attaching the carbon nanotube to a reactive molecule in an operation that is separate from modifying the friction coefficient.

Because the Margrave reference does not show every element of Applicant's independent claims, a 35 USC § 102(b) rejection is not supported. Reconsideration and withdrawal of the rejection is respectfully requested with respect to Applicant's independent claims 4 and 24. Additionally, reconsideration and withdrawal of the rejection are respectfully requested with respect to the remaining claims that depend therefrom as depending on allowable base claims.

§103 Rejection of the Claims

Claims 10 and 29 were rejected under 35 USC § 103(a) as being unpatentable over Margrave et al. and Fisher et al. (U.S. 6,203,814). Applicant respectfully submits that the additional reference of Fisher fail to cure the deficiencies of Margrave as outlined above.

Because the cited references, either alone or in combination, do not show every element of Applicant's independent claims, a 35 USC § 103(a) rejection is not supported by the references. Reconsideration and withdrawal of the rejection is respectfully requested with respect to Applicant's independent claims 4 and 24. Additionally, reconsideration and withdrawal of the rejection are respectfully requested with respect to the remaining claims that depend therefrom as depending on allowable base claims.

Allowable Subject Matter

Claims 18, 19 and 21-23 were allowed. Applicant acknowledges and thanks the Examiner for the indication of allowability of these claims.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6944 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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Date 3-24-04

By 

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 25 day of March, 2004.

Anne M. Richards

Name



Signature